## IAP20 RGC'& PCT/PTO 1 6 DEC 2005

## -1-SEQUENCE LISTING

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WATKINS, John
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<151> 2004-06-25
<150> EP 03014331.7
<151> 2003-06-26
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X=A or T
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<223> X=R or A;
      X=A, T or Q;
X=A, T, or I;
X=A, T or V
<221> VARIANT
<222> 69, 71, 72, 161
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       X=A or L;
       X=A, S or E;
       X=N, A, T, R, E, D, G, H, P, K, Q or V
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<110> BAKER, Matthew

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Gly Ala Xaa Thr Xaa Leu Xaa Xaa Gly Val Met Ala Ala Arg Gly Gln
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Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
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Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
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Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
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Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
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<223> Modified human TPO

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<211> 174 <212> PRT <213> Artificial Sequence

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<220> <223> Modified human TPO

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<210> 8 <211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

<400 × 8 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu Gly Ala Ala Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 115 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 155 150 Asn Ala Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

<210> 9 <211> 174 <212> PRT <213> Artificial Sequence

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<220>
<223> Modified human TPO

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Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
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Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
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150
Ala Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
165
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<210> 10 <211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

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<223> Modified human TPO <400> 11

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<210> 12 <211> 174 <212> PRT <213> Artificial Sequence

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<210> 13 <211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO <400> 13 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Ala Asp Thr Leu 55 60 Gly Ala Ala Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 140 135 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Thr Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

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<213> Artificial Sequence

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Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu 55 Gly Ala Ala Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Thr Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

<210> 15 <211> 174

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                               25
His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
                            40
Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu
                       55
Gly Ala Ala Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
                   70
                                      75
Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
               85
                                   90
Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
           100
                              105
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
       115
                           120
                                               125
Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
                       135
                                           140
Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
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Ala Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
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His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
       35
                           40
Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu
                       55
                                           60
Gly Ala Ala Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
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                                       75
Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
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Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu

120

105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe

125

100

115

Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130
Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
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155
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160
165

<211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

<210> 17

<400> 17 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu 55 60 Gly Ala Ala Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 Thr Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

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<223> Modified human TPO

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<213> Artificial Sequence

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<210> 23 <211> 174 <212> PRT <213> Artificial Sequence

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Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Ala Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140

Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
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Ala Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
165 170

<212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

<400> 24

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<223> Modified human TPO

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Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
                              105
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
                                              125
       115
                          120
Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
                       135
                                          140
Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
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Thr Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
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-400- 20

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu 50 55 60 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 75 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 145 Arg Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

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<210> 28 <211> 174 <212> PRT

<213> Artificial Seguence

<220>

<223> Modified human TPO

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu 55 Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 160 Ala Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 29 <211> 174 <212> PRT

<213> Artificial Seguence

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Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
                                   10
Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
                              25
His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
       35
                          40
                                              45
Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu
Gly Ala Ala Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
                  70
                                      75
Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
              85
                                  90
Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
                               105
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
                         120
                                              125
Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
                       135
                                          140
Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
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                                      155
Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
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<210> 30
<211> 174
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<400> 30
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Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
                              25
His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
                           40
Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu
Gly Ala Thr Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
                   70
                                      75
Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
                                   90
Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
           100
                              105
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
      115
                          120
                                             125
Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
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                       135
                                           140
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Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 160 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 31 <211> 174 <212> PRT <213> Artificial Sequence <220>

<223> Modified human TPO

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cvs Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu 55 Gly Ala Ala Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 160 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

<210> 32 <211> 174

<400> 32
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Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu 50
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Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65
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Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 115 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Ala Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 33 <211> 174 <212> PRT <213> Artificial Sequence

<220>
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<400> 33 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu 50 55 Gly Ala Val Thr Leu Leu Clu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Glu Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 34
<211> 174
<211> PT
<212> PT
<213> Artificial Sequence
<220>
<223> Modified human TPO
<400> 34

34 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu 55 Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 115 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Arg Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

<210> 35

<211> 174 <212> PRT

<213> Artificial Sequence

<2205

<223> Modified human TPO

<400> 35

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu 55 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Thr Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<sup>&</sup>lt;210> 36 <211> 174

<sup>&</sup>lt;212> PRT

<213> Artificial Sequence

<220>

<223> Modified human TPO

<400> 36

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Ala Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 60 55 Gly Ala Thr Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 105 110 100 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 37

<211> 174 <212> PRT

<213> Artificial Sequence

<220>

<223> Modified human TPO

<400> 37

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45 Gly Ala Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu 50 55 60 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 160 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170 <210> 38 <211> 174 <212> PRT <213> Artificial Sequence <223> Modified human TPO <400> 38 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 Gly Ala Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu 55 60 Gly Ala Val Thr Leu Leu Euu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

<210> 39 <211> 174 <212> PRT <213> Artificial Sequence

<223> Modified human TPO

<220>

Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 105 100 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 160 Glu Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

<210> 40 <211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

-400- 40 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 5.0 55 60 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Ala Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

<211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

<210> 41

165

<400> 41
Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
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15 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val

20 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Asp Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

<210> 42 <211> 174 <212> PRT <213> Artificial Sequence

<220>
<223> Modified human TPO

<400> 42

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Cly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Glu Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<sup>&</sup>lt;210> 43

<sup>&</sup>lt;211> 174

<sup>&</sup>lt;212> PRT <213> Artificial Sequence

<220>
<223> Modified human TPO

<400> 43 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cvs Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 45 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 60 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Cly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 Gly Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 44 <211> 174 <212> PRT

<213> Artificial Sequence

<220>

<223> Modified human TPO

.400- 44

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 60 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 His Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

165 170

<211> 174
<212> PRT
<213> Artificial Sequence
<220>
<223> Modified human TPO

<400> 45

<210> 45

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 3.0 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 105 100 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Asn Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

<210> 46 <211> 174 <212> PRT <213> Artificial Sequence

<223> Modified human TPO

-400- 46

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 60 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu

100 105 110
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
115 120
Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
130 140
Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
145 150 155 150
Pro Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
165 170

<211> 174 <212> PRT <213> Artificial Sequence

<210> 47

<223> Modified human TPO

<400> 47 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 60 Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Lys Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 48 <211> 174 <212> PRT <213> Artificial Sequence

<220> <223> Modified human TPO

<400.9 48
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Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
20 25 30
His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu</pre>

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Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu
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Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
                  70
                                      75
Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
              85
                                 90
Val Arg Leu Leu Cly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
           100
                              105
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
                          120
Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
                       135
                                         140
Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
                   150
                                      155
Gln Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
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<211> 174 <212> PRT <213> Artificial Sequence <220> <220> Modified human TPO

<210> 49

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Arg Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 50 <211> 174 <212> PRT <213> Artificial Sequence

<220>

<223> Modified human TPO

<400> 50 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Thr Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

<210> 51 <211> 174 <212> PRT

<213> Artificial Sequence

165

<220> <223> Modified human TPO

<400> 51 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Ala Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Cly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

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<210> 52
<211> 174
<212> PRT
<213> Artificial Sequence
<220>
<223> Modified human TPO
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<400> 52 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Thr Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

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<210> 53
<211> 174
<212> PRT
<213> Artificial Sequence
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165

<220> <223> Modified human TPO

<400> 53 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 85 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe

<211> 174
<212> PRT
<213> Artificial Sequence
<220>
<223> Modified human TPO

<210> 54

<400> 54 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu 55 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

170

<210> 55 <211> 174 <212> PRT <213> Artificial Sequence

165

<220> <223> Modified human TPO

55 Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 56 <211> 174 <212> PRT <213> Artificial Sequence

<223> Modified human TPO <400> 56

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Thr Asp Ile Leu 55 60 Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 160 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 57 <211> 174 <212> PRT <213> Artificial Sequence

<223> Modified human TPO

<400> 57 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Ala Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

<210> 58 <211> 174 <212> PRT

<213> Artificial Sequence

<220>

<223> Modified human TPO

<400> 58

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Lys Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

<210> 59 <211> 174

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<212> PRT
<213> Artificial Sequence
<223> Modified human TPO
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Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
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His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
                           40
Gly Glu Trp Lys Thr Gln Ser Glu Glu Thr Lys Ala Gln Asp Ile Leu
                       55
Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
                  70
                                       75
Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
              85
                                   90
Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
           100
                               105
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
       115
                           120
                                              125
Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
                       135
                                          140
Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
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                                      155
Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
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<210> 60
<211> 174
<212> PRT
<213> Artificial Sequence
<223> Modified human TPO
<400> 60
Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
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Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
                              25
His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
       35
                           40
                                               45
Gly Glu Trp Lys Thr Gln Thr Glu Glu Thr Lys Ala Gln Asp Ile Leu
Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
                                       75
Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
               85
                                   90
Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
           100
                               105
                                                   110
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
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<212> PRT <213> Artificial Sequence <220>

<211> 174

<223> Modified human TPO

<400> 61 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Ala Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 62 <211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

<400> 62
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Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 145 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 63 <211> 174 <212> PRT <213> Artif

<213> Artificial Sequence

<220>

<223> Modified human TPO

<400> 63

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Ala Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 85 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

<210> 64

<211> 174 <212> PRT

<213> Artificial Sequence

<220>

<223> Modified human TPO

<400> 64

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Ala Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 . 160 145 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 65 <211> 174 <212> PRT

<213> Artificial Sequence

:220>

<223> Modified human TPO

<400> 65

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 60 Gly Ala Val Thr Ser Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 140 135 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

<211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 160 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

<210> 67 <211> 174 <212> PRT <213> Artificial Sequence

<220> <223> Modified human TPO

<400> 67 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 55 Gly Ala Val Thr Leu Leu Ala Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 85 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu

130 135 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 <210> 68 <211> 174 <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO -400 - 60 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Ala Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu

170

165 <210> 69 <211> 174

<212> PRT <213> Artificial Sequence

<220>
<223> Modified human TPO

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70
Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
             85
                                  90
Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
           100
                             105
                                                 110
Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
                      135
                                          140
Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
                  150
                                     155
Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
               165
<210> 70
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<211> 174 <212> PRT <213> Artificial Sequence

<223> Modified human TPO

<400> 70 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 45 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Arg Gln Asp Ile Leu 55 Gly Ala Val Thr Leu Leu Euu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165

<210> 71 <211> 74 <212> PRT <212> PRT <213> Artificial Sequence <220> <223> Modified human TPO

<400> 71 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 2.0 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 40 Gly Glu Trp Lys Thr Gln Lys Glu Glu Thr Lys Arg Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Clu Gly Val Met Ala Ala Arg Gly Gln 70 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 Val Arg Leu Leu Cly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 72 <211> 174 <212> PRT

<213> Artificial Sequence

<220> <223> Modified human TPO

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 10 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Lys Glu Glu Thr Lys Arg Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 70 75 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 90 Val Arg Leu Leu Cly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 140 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala 150 155 160 Ala Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu 165 170

<210> 73 <211> 232

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<212> PRT
<213> Artificial Sequence
<223> Modified human Ig G4 Fc domain
<400> 73
Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
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Pro Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
           20
                               25
Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
       35
                           40
Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val
                       55
                                           60
Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
                                       75
                   70
Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
               85
                                   90
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
           100
                               105
                                                    110
Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
                           120
                                               125
Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr
                       135
                                           140
Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                   150
                                       155
Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
               165
                                 170
Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
           180
                               185
Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Ile Phe
       195
                           200
                                               205
Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
                       215
                                          220
Ser Leu Ser Leu Ser Pro Gly Ala
225
                   230
<210> 74
<211> 15
<212> PRT
<213> homo sapiens
<400> 74
Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu
<210> 75
<211> 15
<212> PRT
<213> homo sapiens
<400> 75
Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp
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<211> 15
<212> PRT
<213> homo sapiens
<400> 76
Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val
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<210> 77
<211> 15
<212> PRT
<213> homo sapiens
<400> 77
Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser
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<210> 78
<211> 15
<212> PRT
<213> homo sapiens
Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser
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<210> 79
<211> 15
<212> PRT
<213> homo sapiens
<400> 79
Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro
<210> 80
<211> 15
<212> PRT
<213> homo sapiens
<400> 80
Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His
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                5
                                   10
<210> 81
<211> 15
<212> PRT
<213> homo sapiens
Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro
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                5
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<210> 76

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<210> 82
<211> 15
<212> PRT
<213> homo sapiens
<400> 82
Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val
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<210> 83
<211> 15
<212> PRT
<213> homo sapiens
<400> 83
Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro
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<210> 84
<211> 15
<212> PRT
<213> homo sapiens
<400> 84
Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp
                5
                                   10
<210> 85
<211> 15
<212> PRT
<213> homo sapiens
Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
                 5
                                    10
<210> 86
<211> 15
<212> PRT
<213> homo sapiens
<400> 86
Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp
                                    10
<210> 87
<211> 15
<212> PRT
<213> homo sapiens
<400> 87
Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln
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<210> 88
<211> 15
<212> PRT
<213> homo sapiens
<400> 88
Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu
                                    10
<210> 89
<211> 15
<212> PRT
<213> homo sapiens
Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala
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<210> 90
<211> 15
<212> PRT
<213> homo sapiens
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Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile
<210> 91
<211> 15
<212> PRT
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Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala
<210> 92
<211> 15
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<400> 92
Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu
<210> 93
<211> 15
<212> PRT
<213> homo sapiens
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<400> 93
Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Glu
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<210> 94
<211> 15
<212> PRT
<213> homo sapiens
Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met
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<211> 15
<212> PRT
<213> homo sapiens
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Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg
<210> 96
<211> 15
<212> PRT
<213> homo sapiens.
<400> 96
Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu
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                                    10
<210> 97
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<212> PRT
<213> homo sapiens
Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr
<210> 98
<211> 15
<212> PRT
<213> homo sapiens
<400> 98
Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser
<210> 99
<211> 15
<212> PRT
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<213> homo sapiens
<400> 99
Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu
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<210> 100
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<212> PRT
<213> homo sapiens
<400> 100
Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu
                                   10
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<212> PRT
<213> homo sapiens
<400> 101
Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
<210> 102
<211> 15
<212> PRT
<213> homo sapiens
<400> 102
Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu
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<210> 103
<211> 15
<212> PRT
<213> homo sapiens
Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Gly
                                   10
<210> 104
<211> 15
<212> PRT
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